

ABSTRACT OF THE DISCLOSURE

In an optical switch, a carrier-accumulating layer in which injected carriers are accumulated is provided on a semiconductor substrate having a waveguide formed thereon so that injected effective carriers tend to be accumulated in an effective part, and the burden on a driving circuit is thus reduced to realize high-speed operation. At the same time, when a clad on the carrier injection side, of clad layers formed on both sides of the waveguide, is a second clad layer, and a clad on the substrate side is a first clad layer, a third clad layer is formed on the first clad layer to reduce propagation loss in the waveguide.